

Abstract

The positive active material for a secondary battery of the present invention is β -FeOOH containing at least one element selected from the group consisting of B, P, S, Li, Na, K, Mg, Al, Ca, Sc, Ti, V, Cr, Mn, Co, Ni, Cu, Zn, Zr, Pb and Sn which shows a diffraction peak from the (110) plane having a half width γ satisfying $0.3^\circ < \gamma$ (2θ) when subjected to the X-ray diffractometry with the $\text{CuK}\alpha$ ray. A non-aqueous electrolyte secondary battery comprising as a positive active material such low-crystalline β -FeOOH exhibits an excellent cycle life performance as compared with a non-aqueous electrolyte secondary battery comprising a high-crystalline β -FeOOH as a positive active material.